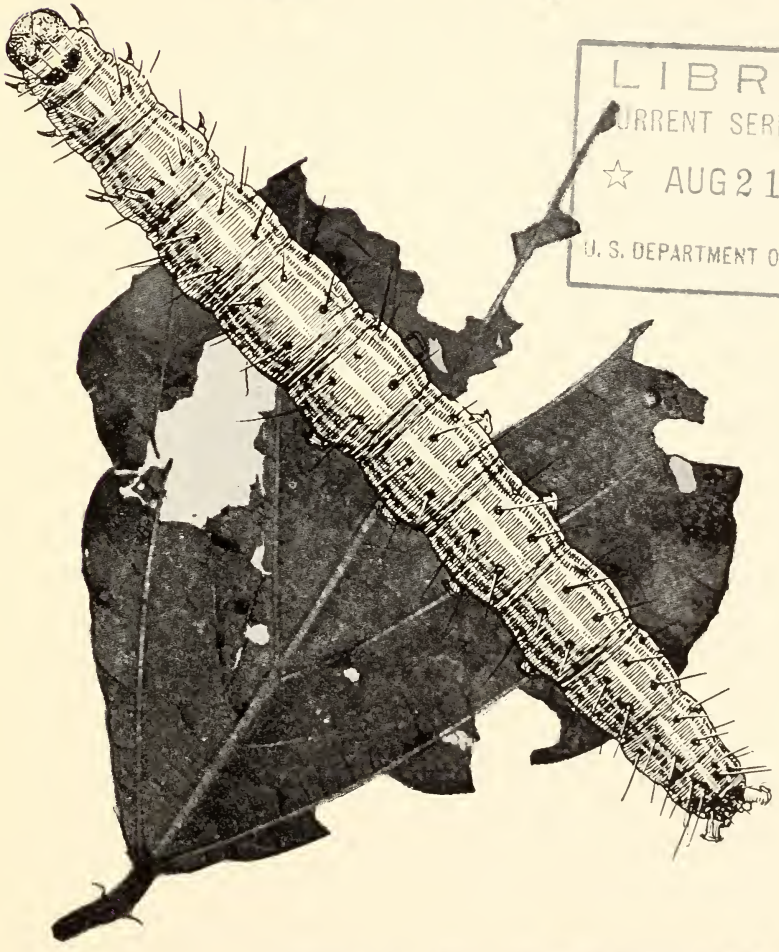
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

Ag 84L
Cup 5

# The Velvetbean Caterpillar



LIBRARY
CURRENT SERIAL RECORD
☆ AUG 21 1953 ☆
U. S. DEPARTMENT OF AGRICULTURE

## HOW TO CONTROL IT

UNITED STATES DEPARTMENT OF AGRICULTURE • Leaflet No. 348

# The Velvetbean Caterpillar
## HOW TO CONTROL IT

EVERY June and July swarms of moths fly in from the Tropics and lay eggs that hatch into destructive velvetbean caterpillars.[1] Control measures are necessary soon after the eggs hatch.

Velvetbean caterpillars feed on various crops in the southeastern States. They chew up velvetbeans, soybeans, and peanuts. Sometimes they infest fields of kudzu, alfalfa, horsebeans, cowpeas, cotton, snap beans, lima beans, and coffee weeds.

One year they cost Alabama peanut growers over 2 million dollars. In another year, they destroyed Florida's velvetbean crop. And there were years when the caterpillars destroyed the soybean crop in Louisiana.

## APPEARANCE AND HABITS

The insects produce three generations in the United States during a season. When winter comes, they die. The following will help you identify their various stages in the field.

### Eggs

Female moths lay their eggs singly on the lower surfaces of leaves. The eggs are white when first laid and orange-colored when ready to hatch. They hatch in 3 to 5 days.

### Larvae

The young larvae are greenish and about $\frac{1}{10}$ inch long. After 3 weeks of continuous feeding, they are full grown and $1\frac{1}{2}$ inches long. They are black or green with several narrow light stripes along their backs and sides.

The caterpillars start feeding on the tender leaves near the top of the plant. When these are gone, they work down to the older leaves and even to the stems. If food becomes scarce, the caterpillars move on to more succulent plants.

The larvae are very active. When disturbed, they spring into the air and wriggle rapidly. They spit a brownish liquid.

### Pupae

Their feeding done, the larvae burrow $\frac{1}{4}$ to 2 inches beneath the soil or crawl under trash, make earthen cells, and change to pupae. The pupae are dark brown and about $\frac{3}{4}$ inch long. The adults emerge in about 10 days.

### Adults

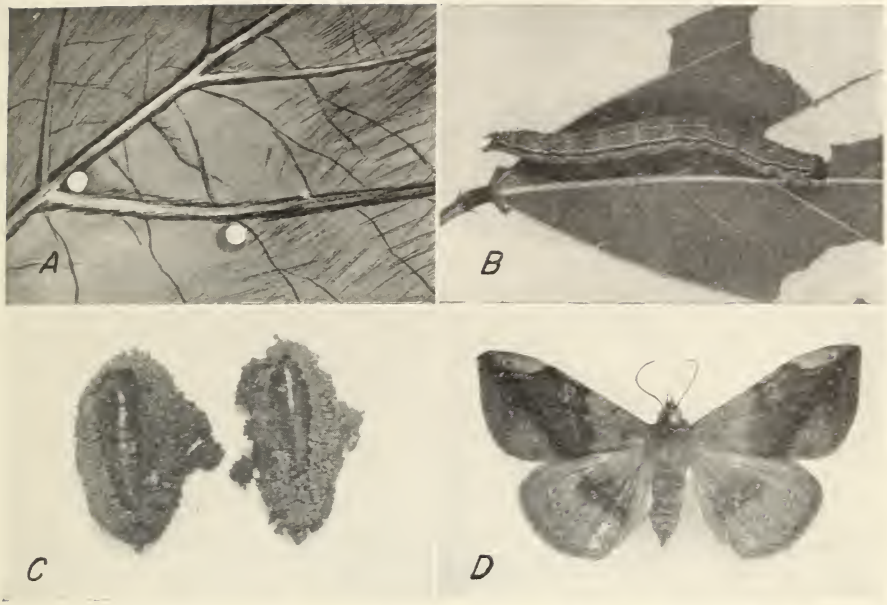
The adults, or moths, are not destructive but are flying danger signs. They are grayish brown with a wingspread of about $1\frac{1}{2}$ inches. You can distinguish them from other moths by the brown or black zig-zag lines across their wings. When disturbed, they fly swiftly from plant to plant.

## CONTROL MEASURES

Insecticides can cut crop damage, and save you money.

In Louisiana, some farmers increased their yield of soybeans 15 percent by insecticide treatment. In Alabama, farmers increased their yield

[1] *Anticarsia gemmatilis.*




The velvetbean caterpillar: *A*, eggs; *B*, larva; *C*, pupae; *D*, adult.

of peanuts 300 to 600 pounds to the acre. You can get similar results.

Watch for moths and their eggs. Apply a dust a few days after the eggs hatch. It will destroy the larvae before they can do any damage. If more eggs hatch, repeat the treatment in 10 days.

If velvetbean caterpillars have started to chew up your plants, you can still control them. Shake a couple of damaged plants vigorously. If more than a dozen larvae fall to the ground, apply a dust.

Dust in the early morning or late afternoon when the air is quiet.

Several dusts are effective for controlling velvetbean caterpillars. Use one of the following at the rate indicated. Your choice will depend on whether or not you plan to use the treated crop for forage. (See precautions.)

| Dust: | *Pounds per acre* |
|---|---|
| DDT, 3 or 5 percent..... | 20 |
| Toxaphene, 10 percent..... | 15 |
| Methoxychlor, 5 percent..... | 20 |

Sulfur is sometimes applied to peanut plants to control leaf spot disease. By adding DDT, methoxychlor, or toxaphene dust to the sulfur, you can control the disease and velvetbean caterpillars at the same time.

## NATURAL ENEMIES

Velvetbean caterpillars have many natural enemies. Red-winged blackbirds, killdees, upland plovers, grackles, sparrows, bobolinks, and mockingbirds feed on them. So do lizards, skunks, frogs, toads, and poultry.

Wasps, robber flies, ground beetles, and fire ants destroy eggs and caterpillars. Moles and ground beetles feed on the pupae in the soil.

Frequently a fungus disease attacks velvetbean caterpillars. Larvae killed by the fungus hang on the stems and leaves. They are greenish white. The disease often occurs too late in the season to save the crop. A cool rainy period in the fall may help to spread the disease and increase its control value.

## PRECAUTIONS

Do not feed crops treated with DDT or toxaphene to dairy animals or to animals being finished for slaughter. *Exception:* Alfalfa treated with toxaphene may be fed if you allow at least 40 days between application of the toxaphene and cutting or pasturing the crop. If you use methoxychlor, you can cut or pasture crops within a few days after treatment.

The insecticides recommended for control of velvetbean caterpillars are poisons. Handle them with care; follow directions on the container. Keep insecticides off the skin and away from your eyes and nose. Wear a respirator if you are working in high concentrations of dusts. After using insecticides, bathe thoroughly and change clothing.

If you accidentally swallow an insecticide, induce vomiting by taking 1 tablespoonful of salt in a glass of warm water. Repeat if necessary. Call a doctor.

## *Fight Your Insect Enemies*

This leaflet was prepared by the Division of Cereal and Forage Insect Investigations, Bureau of Entomology and Plant Quarantine, Agricultural Research Administration.

The agricultural experiment stations of Alabama, Florida, Georgia, Louisiana, North Carolina, and South Carolina have contributed much information on the velvetbean caterpillar and its control.

Washington, D. C. Issued July 1953

U. S. GOVERNMENT PRINTING OFFICE: 1953

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 5 cents